82D CONGRESS
2d Session

SENATE

REPORT
No. 2118

HUMBOLDT BAY, CALIF.

JULY 5 (legislative day, JUNE 27), 1952.—Ordered to be printed

Mr. CHAVEZ, from the Committee on Public Works, submitted the following

REPORT

[To accompany H. R. 6007]

The Committee on Public Works, to whom was referred the bill (H. R. 6007) to authorize the improvement of Humboldt Bay, Calif., as recommended by the Chief of Engineers in House Document No. 143, Eighty-second Congress, first session, having considered the same, report favorably thereon without amendment and recommend that the bill do pass.

The bill is fully explained in the report submitted by the Committee on Public Works of the House of Representatives which is incorporated with this report and made a part hereof as follows:

[H. Rept. No. 2170, 82d Cong., 2d sess.]

The River and Harbor Act approved March 2, 1945, authorized a preliminary examination and survey of Humboldt Bay, Calif. That report has been completed, was transmitted to Congress on May 24, 1951, and is designated House Document No. 143, Eighty-second Congress, first session.

Humboldt Bay is on the coast of California, 225 nautical miles north of San Francisco. The bay is about 14 miles long parallel to the coast and 0.5 mile to 4 miles wide.

The proposed plan of improvement, which this bill authorizes, includes deepening of the entrance channel to Humboldt Bay and of the channels in North Bay to Eureka and Samoa. The plan includes deepening the entrance channel to 40 feet, widening it to 1,600 feet at the outer end at seaward mile 0.91, thence tapering to 500 feet at seaward mile 0.18 and continuing at that width to mile 0.75; deepening the natural channel in North Bay to provide a depth of 30 feet for a width of 400 feet from mile 0.75 to mile 4.29 including easing the bend at mile 0.75; deepening Eureka Channel between miles 4.29 and 5 to 30 feet over the existing project width of 400 feet; and deepening Samoa Channel to 30 feet from mile 4.29 to mile 5.84 for the existing project width of 300 feet. The proposal is subject to certain conditions of local cooperation.

The estimated cost to the United States of the improvements recommended is $406,500, exclusive of $3,500 for establishing navigation aids, and the Federal annual carrying charge are estimated at $65,450, including $49,500 for additional maintenance.

The Board of Engineers for Rivers and Harbors computes the prospective benefits at $141,800 annually and the benefit-cost ratio at 2.17

Humboldt Bay serves as an outlet for the timber resources of Humboldt and Del Norte Counties, and adjacent areas. These two counties have a population of 61 500 .ncluding 21,380 at Eureka, the largest city. They contain nearly 70 percent of the world's stand of redwood timber. Processing of forest products is the most important industry in the tributary area. Lumber production in 1948 approached 1 billion board-feet, or 1,500.000 tons During the period 1920 to 1948, inclusive, the ocean-borne commerce on Humboldt Bay averaged 316,390 tons annually, principally shipments of lumber and receipts of petroleum products.

The Corps of Engineers estimates the prospective annual commerce for transport on these channels, in vessels requiring depths of between 26 feet and 30 feet in the interior channels, at 195,000 tons of lumber shipments and receipts of 200,000 tons of petroleum products.

The committee believes the proposed improvement has ample justification because of anticipated general savings in shipping costs of commodities and the importance of these commodities to the defense program.

The report of the Chief of Engineers, Department of the Army, as set forth in House Document 143, follows:

REPORT OF THE CHIEF OF ENGINEERS, UNITED STATES ARMY

DEPARTMENT OF THE ARMY,
OFFICE OF THE CHIEF OF ENGINEERS,
Washington, D. C., October 23, 1950.

Subject: Humboldt Bay, Calif.
To: The Secretary of the Army.

1. I submit for transmission to Congress my report with accompanying papers on preliminary examination and survey of Humboldt Bay, Calif., authorized by the River and Harbor Act approved March 2, 1945.

2. Humboldt Bay is on the coast of California, 225 nautical miles north of San Francisco. The bay is about 14 miles long parallel to the coast and 0.5 mile to 4 miles wide. Natural depths in the bay are in general insufficient for large seagoing cargo vessels Its ocean entrance about 4 miles north of the south end of the bay, is a jetty-protected opening about 0.5 mile wide through a narrow land strip which forms the west shore of the bay. Zero of the mileage system for the bay channels is between the jetties and approximately in line with the ocean shore. North of the entrance the bay is known as North Bay and south of the entrance, as South Bay. The city of Eureka fronts on North Bay midway along its eastern shore. Arcata is at the north extremity of North Bay and Samoa is near the midpoint of its west shore. Fields Landing is on the east shore of South Bay. The completed Federal project for Humboldt Harbor and Bay provides for rubble-mound jetties, 4,500 feet and 5,100 feet long, at the entrance; an entrance channel 30 feet deep and 500 feet wide from which a channel with natural depths of 26 feet or more extends to the vicinity of Eureka; a channel 26 feet deep and 400 feet wide from that deep water to "N" Street, Eureka, mile 6.3; a channel 26 feet deep and 300 feet wide from the same deep water in the bay to Samoa, mile 5.84; a channel 18 feet deep and 150 feet wide to a wharf at Arcata; and a channel 26 feet deep and 300 feet wide to Fields Landing, mile 3.16, with a turning basin 26 feet deep, 600 feet wide, and 800 feet long at its inner end. Costs to the United States for improvement to June 30, 1949, were $5,040,259 for new work, exclusive of $95,000 contributed by local interests, and $4,819,162 for maintenance. Tides have a mean range of 6.7 feet at Eureka. The wharf and project channel at Arcata have not been used for many years and are not maintained. The principal terminal facilities adjacent to the deep-water channels are a lumber wharf, fishing wharf, and whaling station at Fields Landing; a lumber wharf at Samoa; two oil-company wharves on North Bay south of Eureka; a lumber wharf near mile 4.9 at Eureka; and a number of other wharves in that vicinity.

3. Humboldt Bay is a generally mountainous region forested with redwood, fir, pine, and other species. In the immediate vicinity of the bay are plains and low hills partially devoted to farming The bay serves as an outlet for the timber resources of Humboldt and Del Norte Counties and adjacent areas These two counties have a population of 61 500 including 21,380 at Eureka, the .argest city. They contain nearly 70 percent of the world's stand of redwood timber Processing of forest products is the most important industry in the tributary area. Lumber production in 1948 approached 1 billion board-feet or 1 500,000 tons. During the period 1920 to 1948, inclusive, the ocean-borne commerce on Humboldt Bay averaged 316,390 tons annually, principally shipments of lumber and receipts

of petroleum products. Recently commerce has been hampered by strikes in the maritime and lumber industries, increased costs for vessel operation, and the inadequacy of the existing channels for the larger vessels now in general use. In 1948 the ocean-borne commerce of the bay totaled 179,365 tons, consisting of 151,311 tons of petroleum products, 15,415 tons of lumber products, and 12,639 tons of sea food. In that year reported traffic on the bay exclusive of movements of fishing vessels and ferry taxis consisted of 109 in-bound and out-bound vessel trips, 8 of which were made by steamers drawing in excess of 24 feet. The preponderance of dry-cargo vessels now in service in the intercoastal and offshore trade have a full-load draft of about 28 feet. Coastwise tankers now in general use vary in full-load draft from 25 to 30 feet. The bay area is served by improved highways, a common-carrier railroad, and private logging railroads.

4. Local interests desire further improvement of Humboldt Harbor and Bay to provide an entrance channel 40 feet deep; depths of 30 feet in all the inner channels leading to the principal terminals and in the turning basin at Fields Landing; a width of 400 feet in Fields Landing Channel along an improved alinement; a width of 900 feet in the Fields Landing turning basin; and an easier bend from the entrance channel into North Bay. They state that cargo vessels now in general use need improvements of these dimensions for safety, full loading, and avoidance of tidal delays Ship operators consider it desirable to improve the entrance as proposed in order that large vessels may use the bay as a harbor of refuge. Local interests indicate that suitable conditions of local cooperation will be met.

5. The district engineer presents a plan for further improvement of the entrance channel to Humboldt Bay and of the channels in North Bay to Eureka and Samoa. The plan includes deepening the entrance channel to 40 feet, widening it to 1,600 feet at the outer end at seaward mile 0.91, thence tapering to 500 feet at seaward mile 0.18 and continuing at that width to mile 0.75; deepening the natural channel in North Bay to provide a depth of 30 feet for a width of 400 feet from mile 0.75 to mile 4.29 including easing the bend at mile 0.75; deepening Eureka Channel between miles 4.29 and 5 to 30 feet over the existing project width of 400 feet; and deepening Samoa Channel to 30 feet from mile 4.29 to mile 5.84 for the existing project width of 300 feet. He estimates the cost to the United States for this new work at $406,500, exclusive of $3,500 for establishing navigation aids, and the Federal annual carrying charges at $65,450 including $49,500 for additional maintenance. He finds that such costs as may be incurred by local interests will be offset by terminal charges. The district engineer estimates the prospective annual commerce for transport on these channels, in vessels requiring depths of between 26 feet and 30 feet in the interior channels, at 195,000 tons of lumber shipments and receipts of 200,000 tons of petroleum products. He evaluates the benefits of his plan at $146,300 annually. This consists of $159,300 for savings in vessel operation costs in the movement of these commodities reduced by $13,000 for increased cost of land transportation to deliver 30,000 tons of the lumber to terminals on North Bay. The benefit-cost ratio is 2.24. He estimates the incremental annual charges for improving Fields Landing Channel as desired, enlarging and deepening the basin, and rebuilding the Fields Landing lumber wharf to withstand dredging to depths of 30 feet alongside, at $28,250, of which $6,600 is for the wharf For these improvements the prospective commerce requiring channel depths of between 26 and 30 feet consists of the 30,000 tons of lumber mentioned above on which the saving in vessel operation costs is estimated at $29,025 annually. However, the same saving in vessel operation costs could be realized by land transportation of this lumber to North Bay terminals at an additional annual cost of $13,000. Therefore, the incremental benefit attributable to improvement of Fields Landing Channel and Basin including the wharf is estimated at $13,000 and the benefit-cost ratio is 0.46 The district engineer concludes that this work is not economically justified at this time.

6. The district engineer recommends modification of the existing project for Humboldt Harbor and Bay to provide for further improvement of the entrance channel and the channels in North Bay in accordance with his described plan, subject to the condition that local interests, through the medium of a suitable public body, give satisfactory assurances that they will provide and maintain, adjacent to the Eureka and Samoa Channels adequate wharf and terminal facilities open to all on equal and reasonable terms for the storage, handling, and shipment of lumber and general commerce; provide and maintain adequate depths in the approach and berthing areas of these wharves; provide rights-of-way and spoil areas, and if they desire the dredge spoil placed in areas of their selection, bear the cost in excess of the cost of the most economical method of dredging otherwise applicable; and hold the United States free from claims for damages. The division engineer concurs.

7. The Board of Engineers for Rivers and Harbors, after consideration of the additional information presented by local interests at a hearing before the Board and in separate communications, agrees that additional improvement of Humboldt Bay as recommended by the reporting officers is advisable. It computes the prospective benefits at $141,800 annually and the benefit-cost ratio at 2.17. The Board recommends further improvement of the harbor and bay in general accordance with the plans of the district engineer subject to certain conditions of local cooperation.

8. After due consideration, I concur in the views of the Board and accordingly recommend modification of the existing project for Humboldt Harbor and Bay, Calif., to provide for a bar and entrance channel 40 feet deep at mean lower low water, tapered from a width of 1,600 feet at seaward mile 0.91 to 500 feet at seaward mile 0.18 and thence 500 feet wide to mile 0.75 thence a new North Bay Channel 30 feet deep and 400 feet wide to mile 4.29 with easing of the bend at mile 0.75, and depths of 30 feet in Eureka and Samoa Channels over their existing project widths from mile 4.29 to miles 5 and 5.84, respectively; generally in accordance with the plans of the district engineer and with such modifications thereof as in the discretion of the Chief of Engineers may be advisable; at an estimated cost to the United States of $406,500 for construction and $49,500 annually for maintenance in addition to that now required; subject to the condition that local interests, through the medium of a suitable public body, agree to (*a*) provide and maintain, adjacent to Eureka and Samoa Channels, suitable wharf and terminal facilities with approach and berthing areas fully adequate for large modern cargo vessels, open to all on equal terms for the storage, handling, and shipment of lumber and general commerce; (*b*) furnish without cost to the United States all lands, easements, and rights-of-way, and suitable spoil-disposal areas for the new work and for subsequent maintenance when and as required, and if they desire the dredge spoil placed in areas of their selection, bear the excess cost over and above the cost for the most economical method of dredging otherwise applicable; and (*c*) hold and save the United States free from damages due to construction and maintenance of the project.

LEWIS A. PICK,
Major General,
Chief of Engineers.

○